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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,660	12/17/2004	Marcus Jacka	KANIA-05	6836
26875	7590	07/10/2006	EXAMINER	
WOOD, HERRON & EVANS, LLP			VANORE, DAVID A	
2700 CAREW TOWER			ART UNIT	
441 VINE STREET			PAPER NUMBER	
CINCINNATI, OH 45202			2881	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/518,660

Applicant(s)

JACKA ET AL.

Examiner

David A. Vanore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 1,3,7-8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/9/04 9/9/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) filed on September 9, 2005 is being considered by the examiner.

Specification

2. The disclosure is objected to because of the following informalities: The term "capton" is misspelled. The proper spelling is Kapton™.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-9 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1, and by virtue of dependency claims 2-9 and 11-14, recites the limitation ""the wall near to the active surface of the sensor"" in lines 4-5. There is insufficient antecedent basis for the limitations of "the wall" and "the active surface of the sensor" in the claim. The examiner makes this lack of antecedent basis rejection because the recitation of "the wall" limitation illustrates a further deficiency of the claim treated immediately below.

6. Claim 1, and by virtue of dependency claims 2-9 and 11-14, is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements,

such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: (1) the structural elements of the detector chamber (Item 3) such as the recited "wall" element. If the location of the detection chamber in a scanning electron microscope is critical to the practice of the invention, it is recommended that a description of the microscope column structure, including a wall element if necessary, be included in the claim.

7. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 4 recites that a diaphragm is a Kapton™ diaphragm, which the examiner interprets as implying the composition of the diaphragm is Kapton™. Kapton™ is a trademark. Under MPEP 2173.05(u), the use of a trademark to identify a particular material is improper.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 2 recites that the electrically conductive grid of claim 1 is composed of copper.

However, the specification at pages 6-7 sets forth that the copper grid is used in place of the Kapton™ diaphragm. Since claim 2 depends on claim 1, the invention recited in claim 2 has the disclosed diaphragm (Item 12), the disclosed electrically conductive grid (Item 11), and the disclosed copper grid, where the copper grid is not disclosed as being used with Items 11 and 12, but separately and in a different embodiment.

Claim Objections

11. Claim 1 is objected to because of the following informalities: The claim refers to a diaphragm as being drawn to either Item 11 or Item 12. The specification at page 6 refers to Item 11 as a conductive grid, and Item 12 as a Kapton™ diaphragm.

Appropriate correction is required.

12. Claims 3 and 7-8 are objected to because of the following informalities: The claims recite "the first conductive coating", "the light guide output", and "the photo-multiplier input". There is no antecedent basis for these terms. Applicant is requested to review the claims for further limitations which lack antecedent basis.

Drawings

13. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the microlenses and active sensor coating must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

14. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are considered germane to the instantly claimed invention because they teach charged particle, and in most cases secondary electron detectors, of the Everhard-Thornley class of detector, having at least one grid to provide a guiding potential to charged particles to be detected.

16. USPN 6,943,352 to Hayn.

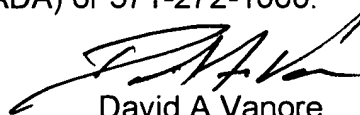
17. USPN 6,888,140 to Hayn.

18. USPN 6,781,124 to Hayn.

19. USPN 6,255,708 to Sudharsanan et al.

20. USPN 5,408,098 to Wells.

21. USPN 4,677,296 to Ohtaka
22. USPN 4,011,450 to Tagawa et al.
23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Vanore whose telephone number is (571) 272-2483. The examiner can normally be reached on M-F 7:30-5:00.
24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


David A Vanore
Patent Examiner
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5/11/06

dav